

## **AMENDMENT TO THE CLAIMS**

This listing of claims will replace all prior versions, and listing, of claims in the application.

### **Listing of Claims:**

1. (currently amended) A method for routing a data packet in a network comprising nodes interconnected by links, the method comprising:

receiving said data packet at a receiving one of said nodes;

extracting routing strategy data from said received data packet, said routing strategy data including information pertaining to at least one routing path via which to route said received data packet to a destination node, each said routing path including at least one other of said nodes;

selecting a ~~selected~~ routing path via which to route said data packet based on said routing strategy data; and

updating said routing strategy data in said data packet.

2. (original) A method as claimed in claim 1, wherein:

said routing strategy data includes information representing at least some of said nodes that said data packet visited prior to being received by said node.

3. (original) A method as claimed in claim 1, further comprising:

transmitting said data packet to a node along said selected routing path.

4. (original) A method as claimed in claim 1, further comprising:  
updating a routing table at said receiving node based on said updated routing strategy data.
5. (original) A method as claimed in claim 1, wherein:  
said selecting selects as said selected routing path one of said at least one routing path identified by said routing strategy data.
6. (original) A method as claimed in claim 1, wherein:  
said selecting selects as said selected routing path a routing path different than any said at least one routing path identified by said routing strategy data.
7. (original) A method as claimed in claim 1, wherein:  
said updating includes combining data representing at least two routing paths to generate data representing a different routing path.
8. (original) A method as claimed in claim 1, further comprising:  
sending said updated routing strategy data to other said nodes.
9. (original) A method as claimed in claim 1, wherein:  
said updating includes generating a new routing strategy.
10. (original) A method as claimed in claim 1, wherein:  
said network comprises an ad-hoc network.

11. (currently amended) A system for routing a data packet in a network comprising nodes interconnected by links, the system comprising:

a receiver, adapted to receive said data packet at a receiving one of said nodes; and

a controller, adapted to extract routing strategy data from said received data packet, said routing strategy data including information pertaining to at least one routing path via which to route said received data packet to a destination node, each said routing path including at least one other of said nodes, to select a ~~selected~~ routing path via which to route said data packet based on said routing strategy data, and to update said routing strategy data in said data packet.

12. (original) A system as claimed in claim 11, wherein:

said routing strategy data includes information representing at least some of said nodes that said data packet visited prior to being received by said node.

13. (original) A method as claimed in claim 11, further comprising:

a transmitter, adapted to transmit said data packet to a node along said selected routing path.

14. (original) A system as claimed in claim 11, wherein:

said controller is further adapted to update a routing table at said receiving node based on said updated routing strategy data.

15. (original) A system as claimed in claim 11, wherein:  
  
said controller is further adapted to select as said selected routing path one of said at least one routing path identified by said routing strategy data.

16. (original) A system as claimed in claim 11, wherein:  
  
said controller is further adapted to select as said selected routing path a routing path different than any said at least one routing path identified by said routing strategy data.

17. (original) A system as claimed in claim 11, wherein:  
  
said controller is adapted to perform said updating by combining data representing at least two routing paths to generate data representing a different routing path.

18. (original) A system as claimed in claim 11, further comprising:  
  
a transmitter, adapted to send said updated routing strategy data to other said nodes.

19. (original) A system as claimed in claim 11, wherein:  
  
said controller is adapted to perform said updating by generating a new routing strategy.

20. (original) A system as claimed in claim 11, wherein:  
  
said network comprises an ad-hoc network.

21. (currently amended) A computer-readable medium of instructions for controlling routing of a data packet in a network comprising nodes interconnected by links, the instructions comprising:

a first set of instructions, adapted to control a receiving one of said nodes to receive said data packet;

a second set of instructions, adapted to control a controller of said receiving node to extract routing strategy data from said received data packet, said routing strategy data including information pertaining to at least one routing path via which to route said received data packet to a destination node, each said routing path including at least one other of said nodes;

third set of instructions, adapted to control said controller of said receiving node to select a ~~selected~~ routing path via which to route said data packet based on said routing strategy data; and

a fourth set of instructions, adapted to control said controller of said receiving node to update said routing strategy data in said data packet.

22. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said routing strategy data includes information representing at least some of said nodes that said data packet visited prior to being received by said node.

23. (original) A computer-readable medium of instructions as claimed in claim 21, further comprising:

a fifth set of instructions, adapted to control a transmitter of said receiving node to transmit said data packet to a node along said selected routing path.

24. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said fourth set of instructions is adapted to control said controller to update a routing table at said receiving node based on said updated routing strategy data.

25. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said third set of instructions is adapted to control said controller to select as said selected routing path one of said at least one routing path identified by said routing strategy data.

26. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said third set of instructions is adapted to control said controller to select as said selected routing path a routing path different than any said at least one routing path identified by said routing strategy data.

27. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said fourth set of instructions is adapted to control said controller to perform said updating by combining data representing at least two routing paths to generate data representing a different routing path.

28. (original) A computer-readable medium of instructions as claimed in claim 21, further comprising:

a sixth set of instructions, adapted to control a transmitter of said receiving node to send said updated routing strategy data to other said nodes.

29. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said fourth set of instructions is adapted to control said controller to perform said updating by generating a new routing strategy.

30. (original) A computer-readable medium of instructions as claimed in claim 21, wherein:

said network comprises an ad-hoc network.